Causal Principles of Movement and Change in a System

A system is defined as an entity composed of interrelated parts that function as a whole. You body is a system.

1. Gravitational energy, thermal energy and/or chemical **energy** drive all movement and change of matter on Earth.
2. A system is in **equilibrium** when energy in the system is balanced.
3. Matter moves and changes to return a system to **equilibrium**.
4. **Energy** is needed to break bonds and is released when bonds form.
5. **Temperature** is a measure of the movement of molecules. Higher temperature means molecules are moving faster.
6. When molecules move faster, the **density** of most substances decreases. Water is an anomaly because liquid water is more dense than ice.
7. **Buoyancy** causes materials to rise or fall due to the relative density of materials.
8. **Feedback loops** can accelerate, decelerate or dampen change.